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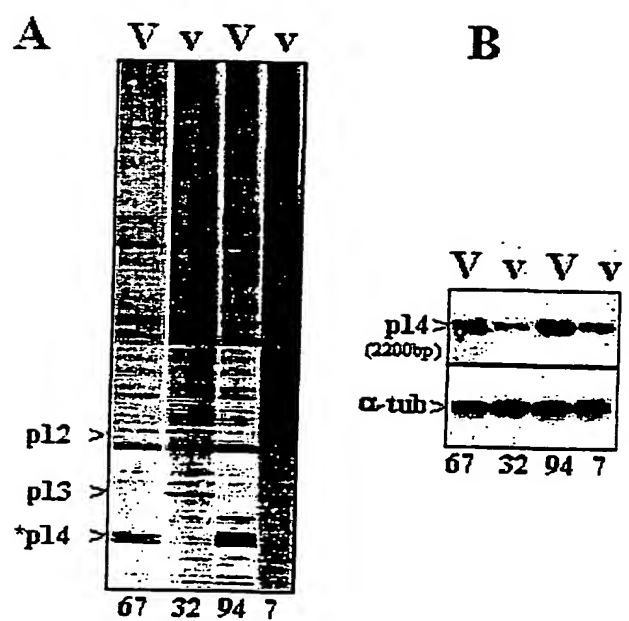


Figure 1

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aacgtgtacgccattcccggtttcttgattctgtgtagctcagctctacccatttctgattgataccgtt	216
ttccttttctgtttgcaaaagaaaa ATG CAG CGC TCA TTT CTT GTT TTT GTT CTG TGC GCC	276
M Q R S P L V F V L C A	12
CTT CTC TTC TGC GTC GCG TCC GCA GAG GTG CAG GTG GCC ACT AAG GAC AAC TTT	330
L L F C V A S A E V Q V A T K D N F	30
GAC AAG GTC GTA ATC GGG GAT CTC ACG TTG GTC AAG TTT TAT GCT CCG TGG TGC	384
D K V V I G D L T L V K F Y A P <u>W C</u>	48
GGC CAC TGC AAG ACA CTC GCC CCG GAG TTT GTA AAG GCC GCT GAC ATG CTG GCC	438
<u>G H C K</u> T L A P E F V K A A A D M L A	66
GGC ATC GCG ACC CTT GCA GAG GTC GAT TGC ACC AAA GAA GAG AGC CTT GCT GAG	492
G I A T L A E V D C T K E E S L A E	84
AAG TAC GAA ATC AAG GGG TTC CCC ACG CTG TAC ATC TTC CGT AAC GGT GAG AAA	546
K Y E I K G F P T L Y I F R N G E K	102
GTG AAG ATC TAC GAT GGT CCC CGC ACT GCC GCC GGC ATC GCG TCG TAC ATG AAG	600
V K I Y D G P R T A A G I A S Y M K	120
GCG CAT GTC GGT CCA TCG ATG AAG GCC ATC TCA ACG GCT GAA GAG CTG GAG GAG	654
A H V G P S M K A I S T A E E L E E	138
CTC AAG AAG GAG ACT TTC CCG GTG TGC GTG GTG AAG ACA GCG AGC ACC GAC TCG	708
L K K E T F P V C V V K T A S T D S	156
GAG ATG GCG TCG ATG ATA ACC AAG GTG GCG GAC TCT CTC CGC TCG CAG ATG AAC	762
E M A S M I T K V A D S L R S Q M N	174
TTT GTG CTC GTG ACG GAT GCG GCC ATC TCT CCG AAT GAT GCC ATG GAG TCG GTT	816
F V L V T D A A I S P N D A M E S V	192
ACG GTG TAT CGC AAG AAT GCG GAG CGC GAG GCG TAC ACC GGC GCT ACA CCA ATG	870
T V Y R K N A E R E A Y T G A T P M	210
ACG GCA GAG TCG GTG AAG AGC TTT CTC ACG AGT GCT GTG TTG GAC TAC TTT GGC	924
T A E S V K S F L T S A V L D Y F G	228
GAG CTC GGC CAG GAG AAG TTT CAG AAG TAC ATG GAA GCG AAC AAG GAT AAA CCT	978
E L G Q E S F Q K Y M E A N K D K P	246
CTT GGG TGG GTG TTC ATC GAC AAG AAC ACG GAT TCT GCG TTG AAG GGG TCA CTT	1032
L G W V F I D K N T D S A L K G S L	264
GTG GCG GTG GCG GAG AAG TAC CGC TCG CAG GTG TTG CTA ACC TAC ATT GAC GGC	1086
V A V A E K Y R S Q V L L T Y I D G	282
GAT CAG TAC CGC CCC GTC TCG CGC CAG CTG GGC ATT CCT GAG GAT GCG AAG TTC	1140
D Q Y R P V S R Q L G I P E D A K F	300
CCG GCG TTT GTG GTC GAT TTC GAG CGC CGC CAT CAC GTG ATG GGG ACG GAC ACC	1194
P A F V V D F E R R H H V M G T D T	318
CCA GTC ACC TCC GAG TCT GTC GCT GCG TTT GTG GAG AAG TAT GTC AAG GGC GAG	1248
P V T S E S V A A F V E K Y V K G E	336
ACG AAG CAG ACC GTG ATG TCC GAC GCG ATT CCC GCT AAG GAG ACG GTG AAC GGC	1302
T K Q T V M S D A I P A K E T V N G	354
CTC ACA ACG GTG GTG GGT CAG ACT TTT GCG AAG TAC ACG GAC GGC ACA CAA AAC	1356
L T T V V G Q T F A K Y T D G T Q N	372
GTG ATG CTG CTC TTC TAC GCG CCG TGG TGC <u>G A C H C K</u> K L H P	1410
V M L L F Y A P <u>W C G H C K</u>	390
GTC TAC GAT AAA GTA GCC AAG AGC TTC GAG TCT GAG AAT GTG ATC ATT GCG AAG	1464
V Y D K V A K S F E S E N V I I A K	408
ATG GAT GCC ACG ACG AAC GAC TTT GAC CGC GAG AAG TTT GAG GTG TCT GGA TTT	1518
M D A T T N D F D R E K F E V S G F	426
CCA ACG ATT TAC TTC ATC CCA GCC GGC AAG CCG CCA ATC GTG TAC GAG GGT GGC	1572
P T I Y F I P A G K P P I V Y E G G	444
CGC ACC GCA GAG GAA ATC CAG GTG TTT GTG AAG TCT CAC CTG ACC GCC TCC GCC	1626
R T A D E I Q V F V K S H L T A S A	462
GCT CCA TCT GGC GGC CCT TCC GGC AAC AGC GAA GAG GAA GAT TTG TAG gactgca	1681
A P S G G P S G N S E E E D L	478
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Figure 2

Figure 3 A

L. major 1 -----MORSEFLVFLCALIFCVSAEVQ-----VATKONFD
T. brucei 1 -----MRATFVALALATMRESTAESLK-----ITKEN-SN
H. jecorina 1 -----MOQRRLTAALVAALAAVVSAAESL-----VKSILTKDTFN
C. elegans 1 -----MIWVQAALVASFLAFASAGGA-----VLEYIDGNFD
C. reinhard 1 MNRWNLLALTLGLLVAAPSTKHQFAHASDEYEDDEEDDAPAAPKDDVDVTVVTVKNND
D. melano 1 -----MKFLLCALFLAASYVAASAEAEVKVEE-----GVLVATVDNFK
C. parvum 1 -----MIGIRSLVSAALGFSCLSKVVLGSEDAHFIS-----EHITSLTSSNFE
H. sapiens 1 -----MIRRALCLAVAALVRADAPBED-----HVLVLRKSNFA

L. major 32 KVVIG-DITLVKFYAPWCGHCKTLAPEYVKAADMAGIAT---LAEVDCITKEESLAEKYE
T. brucei 31 ETIAKSEIFLVKFYVDTCCGYCOMLAPENBKAANETIDNALMG---EVDCHSOPELAANTS
H. jecorina 34 DFINNSNDLILABSEAPWCGHCKALAPEYEEAATTLKDKS---IKLAKVDCVBEADLCKEHG
C. elegans 32 DLIQTHDIALVKFYAPWCGHCKTLAPEYERAPKASNDPPVALVKVDCITTEKTVCDEKG
C. reinhard 61 ETIVKSKFALVEFYAPWCGHCKTLKPEYAKAATAALKAAAPDALPAKVDATEBESLAQKEG
D. melano 39 QLIADNEFVLVEFYAPWCGHCKALAPEYAKAAQOLAEKESPIKLAKVDATVEGELAEQYA
C. parvum 45 DFIKSKBHVIVTFEAPWCGHCTALEDEEKATCAEISKLSPPVHCSSVDATENMELAQOYG
H. sapiens 36 EALAANKYMLVEFYAPWCGHCKALAPEYAKAAGKLAEGSEIRLAKVDATSEESDLAQOYG

L. major 88 LKGEPTLYIFRNCE--KVKIYDGPRTAAGIASYMAHVGPMSKALSTAEELBELKKESTFP
T. brucei 88 LRGYPTEILFRNGK--EAHEYGGARTKDDITIKYTKANVGPAVTPASNAEEVTRAKEBHDV
H. jecorina 92 VEGYPTLKVFRGLD--KVAPVIGGRKADGITSYVVKOS-LPAVSALTCKDTLEOFKTADKV
C. elegans 92 VAGEPTLKIFRNCG--VPAQYDGPDRADGIVKFMGSGSGSSKELKTVAEFKFTGGDEN
C. reinhard 121 VQGYPTLKWVDC--ELASDYNCPDRADGIVGWKKESTGPPAVTVEDADKLKSEADAEV
D. melano 99 VEGYPTLKFERSG--SPVEYSGGROAADITAVTKEGPPAKDLTSVADAEOLKDNEL
C. parvum 105 VSGYPTLKFERSGID--SVQNYSGARSKDAFIKVIKLTGPAVQVAESEBAIKTFASSSS
H. sapiens 96 VRGYPTLKFERNCDTASPKBYTAGREADDIVNFKKRTGPAATTLPDCAAESESVESSEV

L. major 146 VCVKTASTDESMASMITKVASDSRSONFVLVTDAAHSPNDAMESVT-----VYRKNAE
T. brucei 146 VCVGLTANNSTSLSTLAEAAQSERVSLKFFFEAPKLPFDEKPETIVVYR-----KG
H. jecorina 149 VEIVYIAADDKASNETITALEANEHRDITLFGGVNDAAVAEAEAGVKFP---S-DVLMKSFSD
C. elegans 150 VVIGEESESKLKDSYLKVADTERDRFSFAHTSNKDIKKAGYSDDVVVFVPKKLHNKFD
C. reinhard 179 VAVGAFKALEGEIYDFEKSFAAKTEDVFEVQITSADYAKAAGLDAVDTVSV-VKNFAGED
D. melano 156 ALLEGFKDLESEAKTFTKVANALDSFMFVSNNADVIKYEAKDNG-----VWLEKKPED
C. parvum 163 AFVGRFTSKDSAEYAVFEKVASGHEHNIAFIAFFOEGEQKLEVLHK-----D
H. sapiens 156 AVIGEEKDVESDSAKQLQAAEAIDDIPTGITSNSDVFISKYQLDKDG-----VWLEKKFD

L. major 201 REAYTGATPMTABSVRSFSLTSAVLDFYGEELGOESFOKMEANKDPLGWVFTDRN--TDS
T. brucei 198 GEREVYDGPMEVEKLTETFLQISRVAFGGELTPENYQYYSVIKRP--VGWAMVKPNETASI
H. jecorina 205 EGKNVESEKFAEATRNEAQVAATPLVGEVGPETYAGYMSAGIPLAYIFAETAEE---RE
C. elegans 210 TNEFKYLCNYDITDKIKNELVHETVGFAGIRTOGNLFQEQKPIVIVYINVDYVDPKGSN
C. reinhard 238 RATAVLATDITDLSLTAIVKSEKMPPTIEFNQKNSDKIFNSGINKQLTLWTADDLKADA
D. melano 211 DKKSVEEGELNEENLKKFAQVQSTPLIVDFNHESASKIFG-CSIKSHLLFFVSRGGHIE
C. parvum 211 EEPVSLPMPKTVEELEAKISIMNVPFSAISAENYSLYMS--RE--GYTPGSVVLTRTSP
H. sapiens 211 EGRNNEEGEVTKENLLDETAKHNOPLVIEFTETAPRTFG-GEIKTHILLFLPKSVSDYD

L. major 259 ALKGSILVAVAEKYRISOVLLTYIDGDMR--PVSROLGTPEDAKFPFVVDFFRRE-EVMG
T. brucei 256 ELKESLTEVEKKMRSEHMVVLWNISKHP---VWRDEGVPEDAKYPALAIHWGAN-YLES
H. jecorina 262 NLAKHLKPAEKYKGINFADIDAKNFG--SHAGNINLTKDFPAFAIHDISKNLKFPFD
C. elegans 270 YWRNRVLKVAQNYKRAVQSAVSNKEEFSSEIEINGLCERKDSDKPIVAITLTNEG---YP
C. reinhard 298 EIMTVFREASKKEKGOLFEVTVNNEG DGADPVINFFGLKGATSPVLLGFFMEKNK-KFRM
D. melano 270 KYVOPLKBLAKKYRDDILHEVTLSSDEEDHTRIFEFGMNEEVPTIRLIKESDMAKYKP
C. parvum 267 SMLOHLERLQILITEKSMPLSTIDTQEG-SHATOHLLEHFPGLVIOQSVNPSIE-VMYG
H. sapiens 270 GKLSNFTAAESFKGKIHTFIDSDHTDNQRILEFGILKKECPAVRLITLSEEMTKYKP

Figure 3 B

L. major 316 TDTPTSESVAAAFVEKYVKGETKOTVMSDAIPAKETVNGLTIVVGGTFEAKYTDG-TQNVN
T. brucei 312 TAEVVTRESLEKFTLEPAAGRUEPTTHKSLPYPEVETVDGKITIVAKTMOKHLTS-GKDH
H. jecorina 320 QSKETTEKDTAAAFVDGSSSGKTEASTIKSEPIPETQ-EGPVTWVAHSYKQIVLDDKKDVL
C. elegans 327 MDQBFSDVNDLQQFVDEVLGNAEPYMKSEPIPEEQ--GDVKVAVGKNEKELIMDADKQVL
C. reinhard 357 EG-EFTADNVAKFAESVVDGTAQAVLKSEAIPEDPYEDGVYKIVGKTVESVVLDETQDVL
D. melano 330 ESDDLSEETHEASTLKKFLDGKIKOHLISQELPEDWDKNPVKIVSSNFESVALDKSKSVL
C. parvum 325 PAKFDSVEPLKEFMKQVSEGHKELSIKSEPIPAEQ-SCPVTWVAVCKTFEEIVFRSDKQVL
H. sapiens 330 ESEBITAERTITEFCHRFLEGGKIKPHLMSQELPEDWDKQPVKVLVGNNEEDVAFDEKENVF

L. major 375 ILEFYAPWCGHCKKLEPHYDKIAKSES---ENVIIAKMDATINDFDREKFEVSGFPTIY
T. brucei 371 ILFEAPWCGHCKNFAPTEDEKIAKESDAT---DLIVASLDATANYVNSSTFTVTAFTPTF
H. jecorina 379 IEFYTPWCGHCKALAPKYDELASIYAKSDFKDKVIAKYDATANDVP---DEIQGFPTIK
C. elegans 385 IEFYAPWCGHCKSLAPKYDELAELKLNK---EDVIIAKMDATANDVPPM-FEVRGFPTIL
C. reinhard 416 IEFYAPWCGHCKKLEPIYKLLAKREKK---VDSVIIAKMDSTENEHPE--IEVKGFPITIL
D. melano 390 IEFYAPWCGHCKCLAPIYDOLAEKYKD---NEQVIIAKMDSTANELES--IKISSEPTIK
C. parvum 384 IEFYAPWCGHCKNLEPIYKLLAEKYKD---NOKVIIAKMDSTANELES--IKISSEPTIK
H. sapiens 390 IEFYAPWCGHCKCLAPIYDKILGETYKD---HENVIIAKMDSTANEVEA--VKVHSEPTILK

L. major 431 FIPA--GKPPPIVYEG-GRTADEIQVFVKSHLT-----ASAAPSGGSPSGNS
T. brucei 427 EVPN--GGKPVVTEG-ERSFENVYEFVRKEVITTFKVSEKPANVTEBKKSEFENKSSKSNE
H. jecorina 436 LYPAGDKKNPVTVSG-ARTVEDFIEFIKENCKYKAGVEIPAEPTTEASASESKASEEAKA
C. elegans 440 WLPKNAKSNPIPMNG-GREVKQFVSEFISKES-----T---DGLKGFSRDGKKK
C. reinhard 471 FYPAGSDRTPPIVEEGGDRSLKSLTKFINTNAKIPIYELP---KKGSDGDEGTSDDKOKPAS
D. melano 445 VFRK-EDNKVIDENL-DRTLDDEFVKFDANG-----EVADSEPVETEEEEEAP
C. parvum 441 EVKA-GTRTPIPYDG-KRTVEAFKEFISES-----SFPQD-KE
H. sapiens 445 FFPASADRTVIDYNG-ERTLDGFKKFLSESGGQDGAGDDDDLEDLEBSEPDMEEDDDOKA

L. major 473 -----EEDL
T. brucei 484 SNDSNESNVDRQDL
H. jecorina 495 SEET-----EDEL
C. elegans 484 K-----KTEL
C. reinhard 528 D-----KDEL
D. melano 492 K-----KDEL
C. parvum 477 S-----KDEL
H. sapiens 504 V-----KDEL

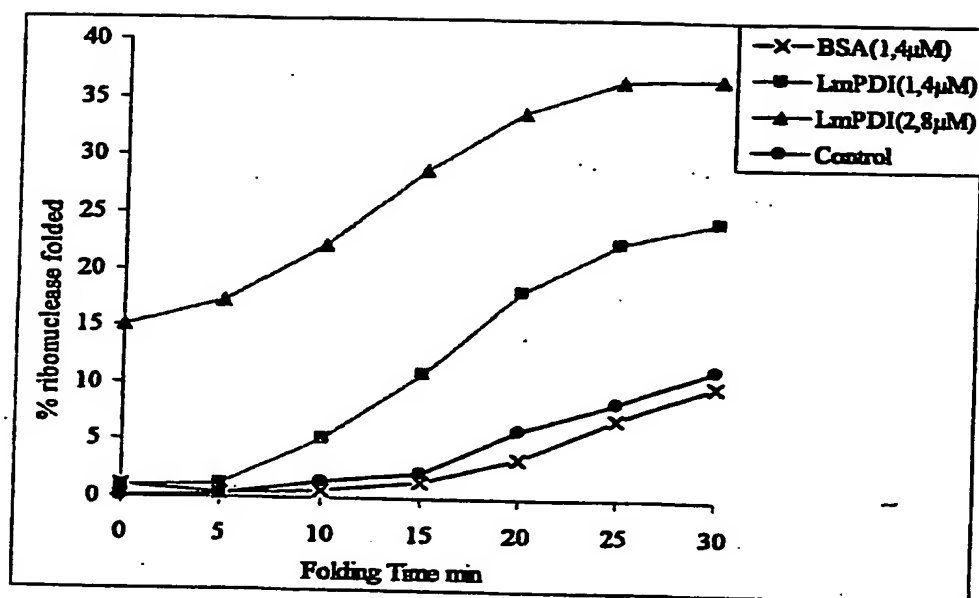


FIGURE 4

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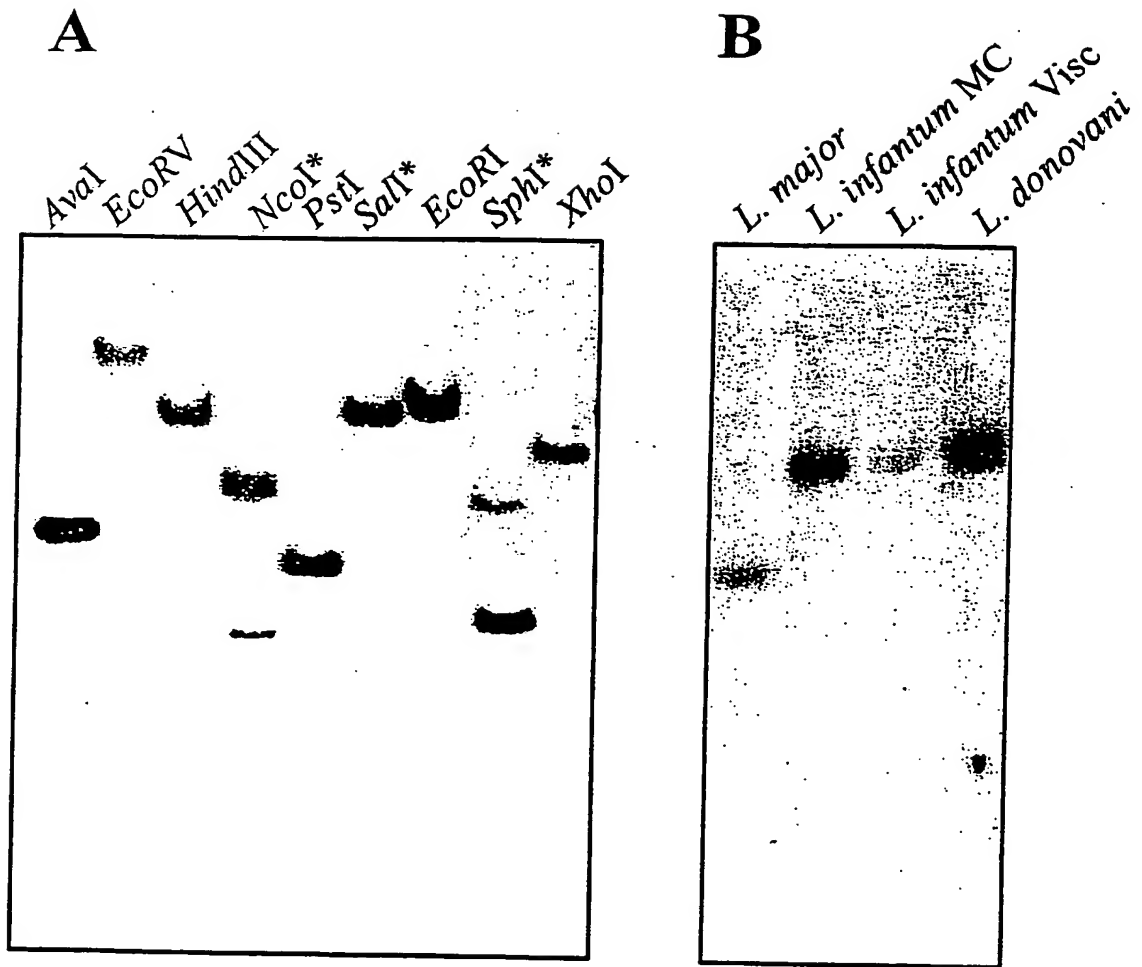


Figure 5

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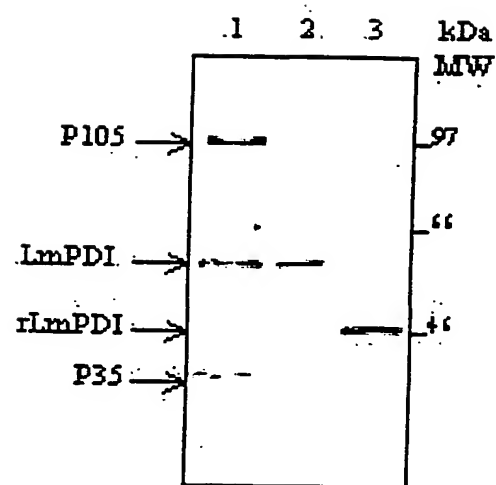


Figure 6

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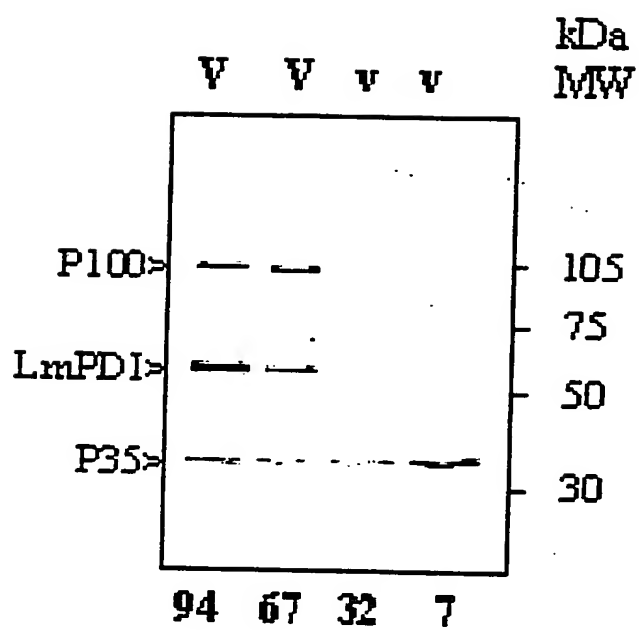


Figure 7

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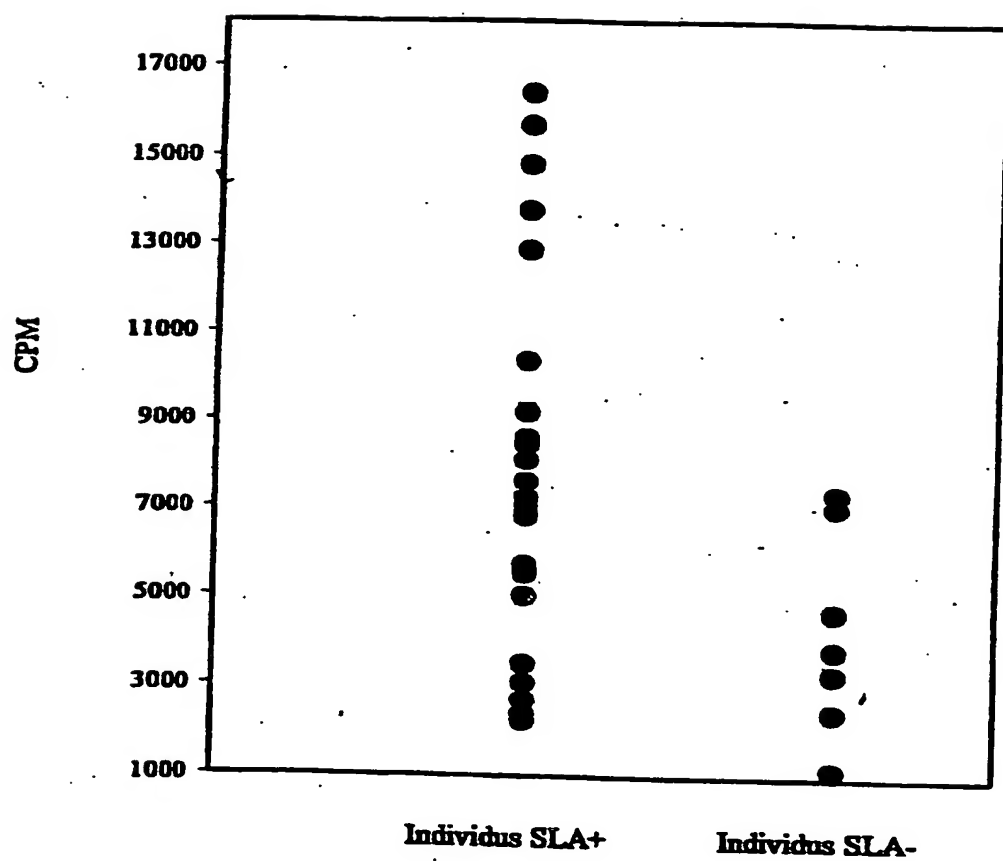


FIGURE 8

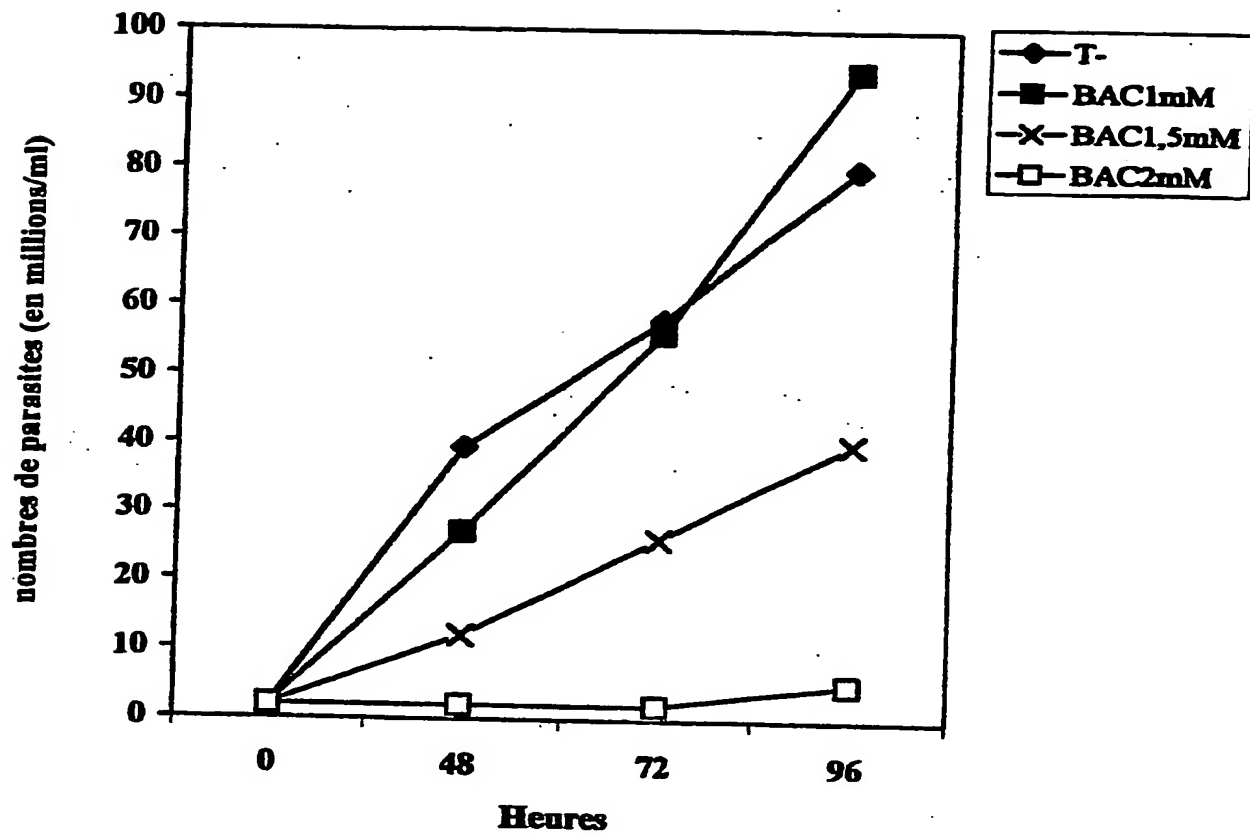


FIGURE 9

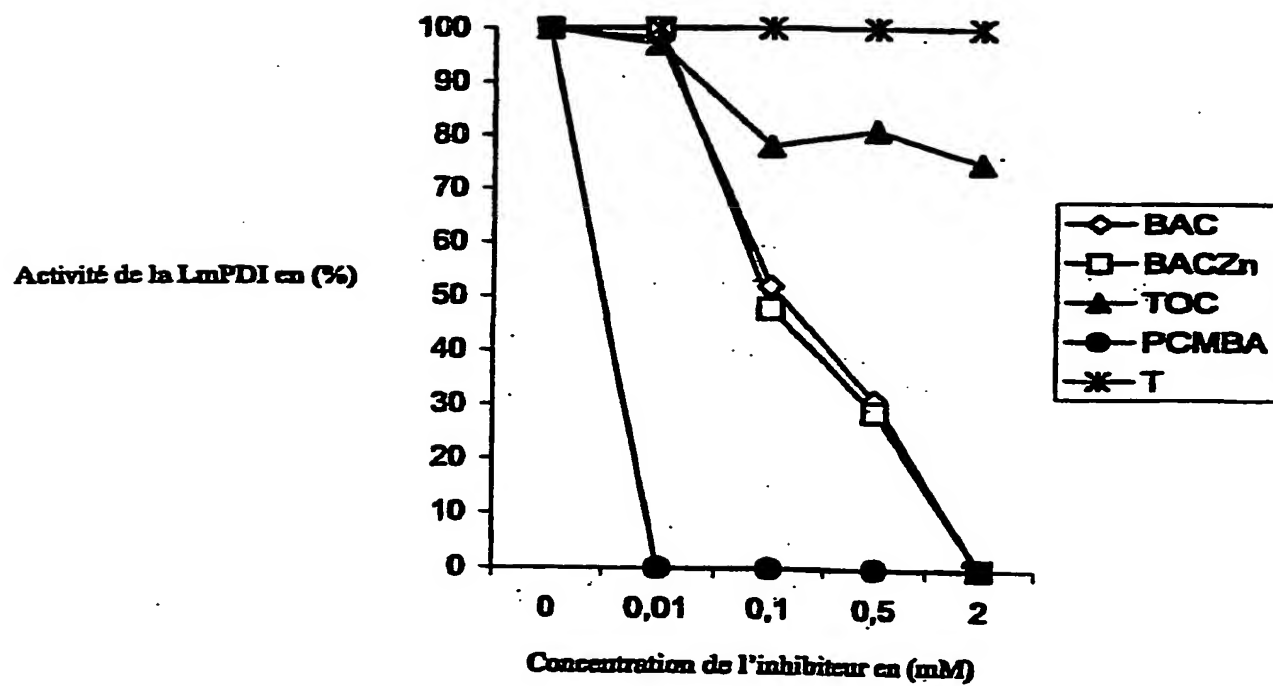


FIGURE 10

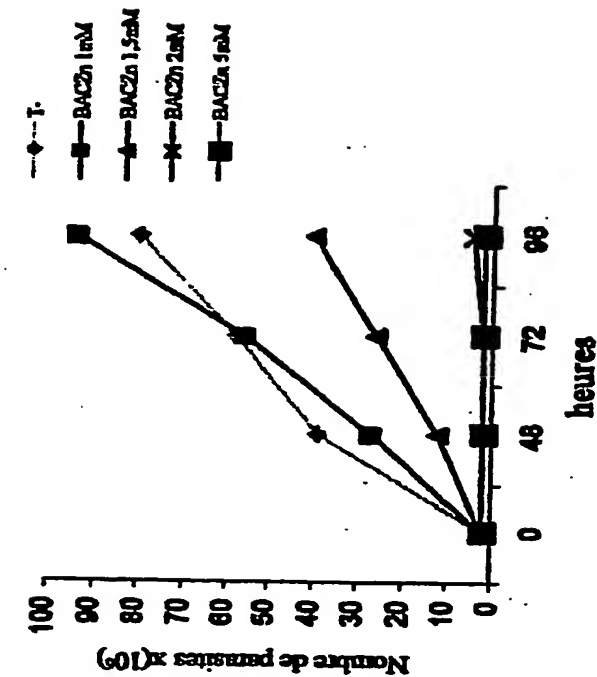


Figure 11 B

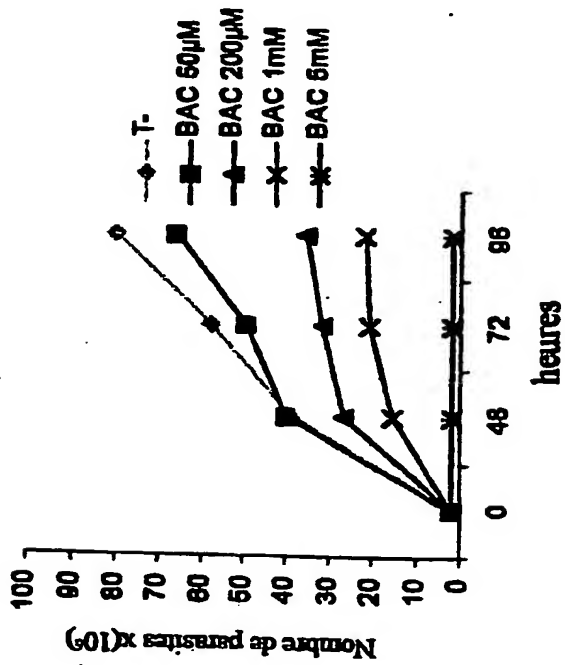


Figure 11 A

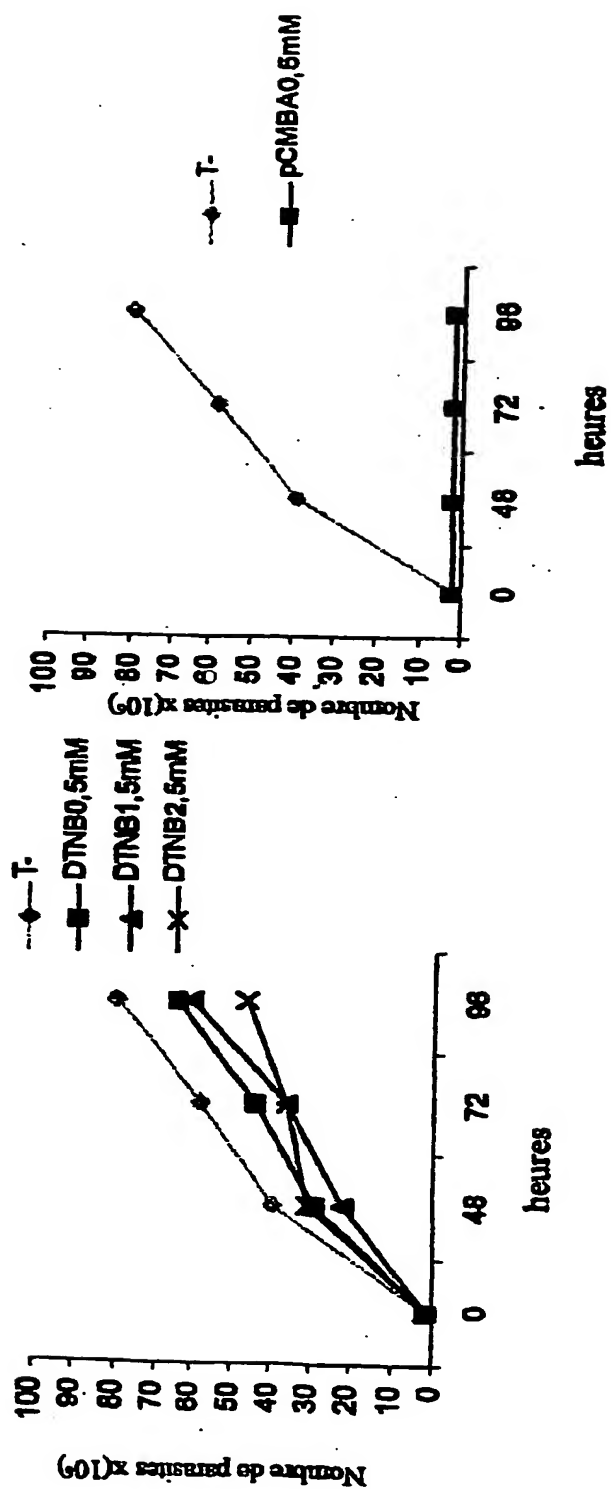


Figure 11 C

Figure 11 D

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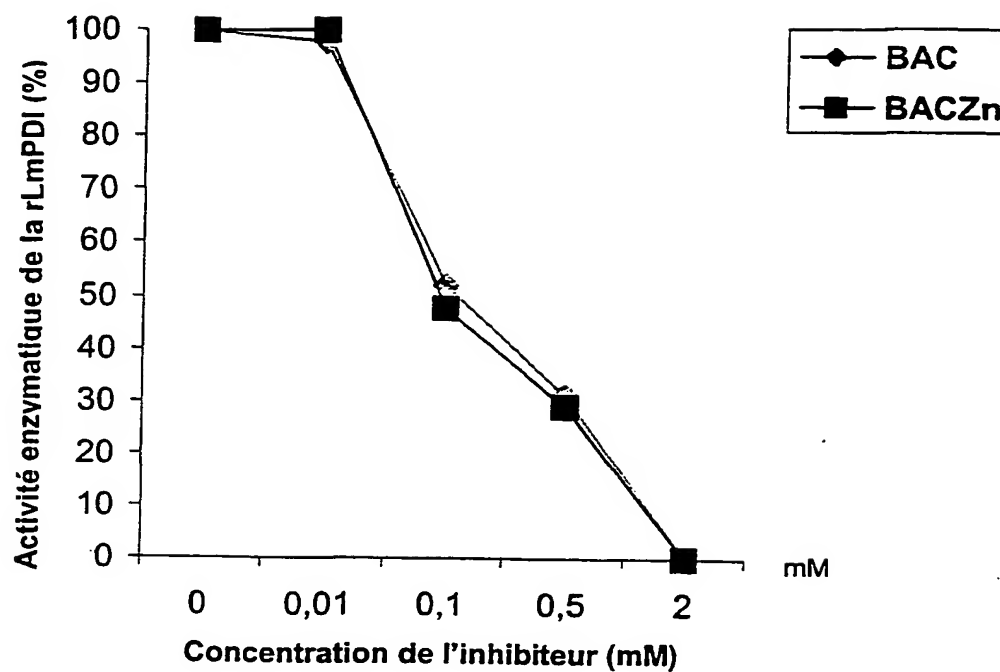


Figure 12

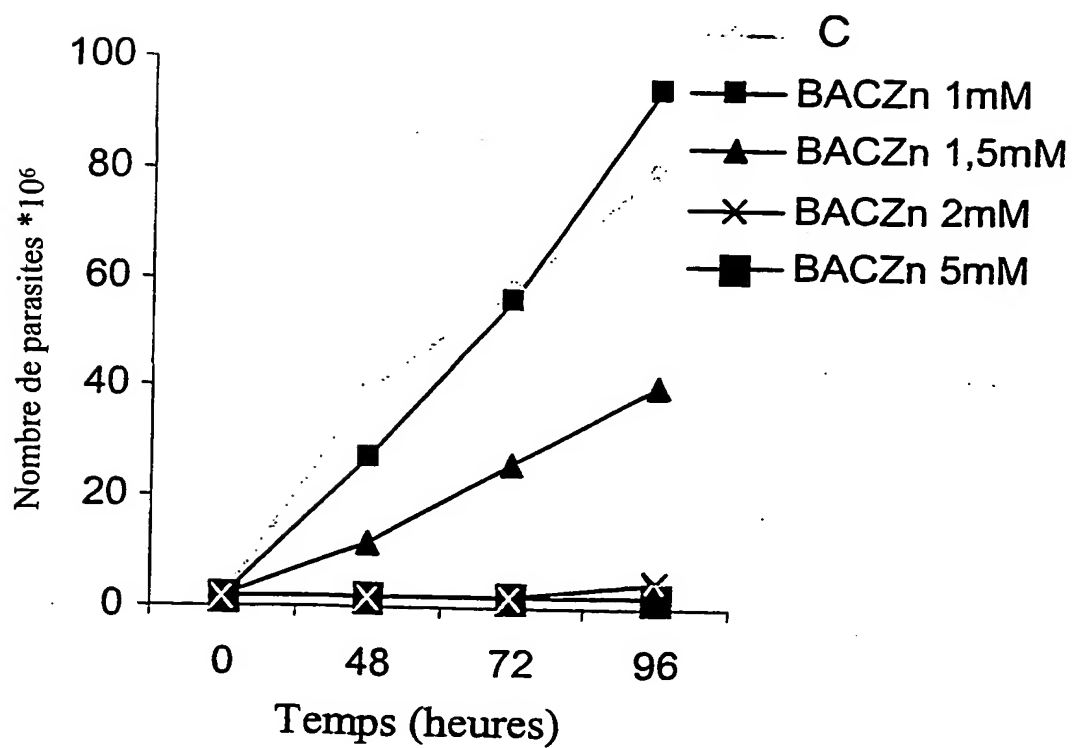


Figure 13

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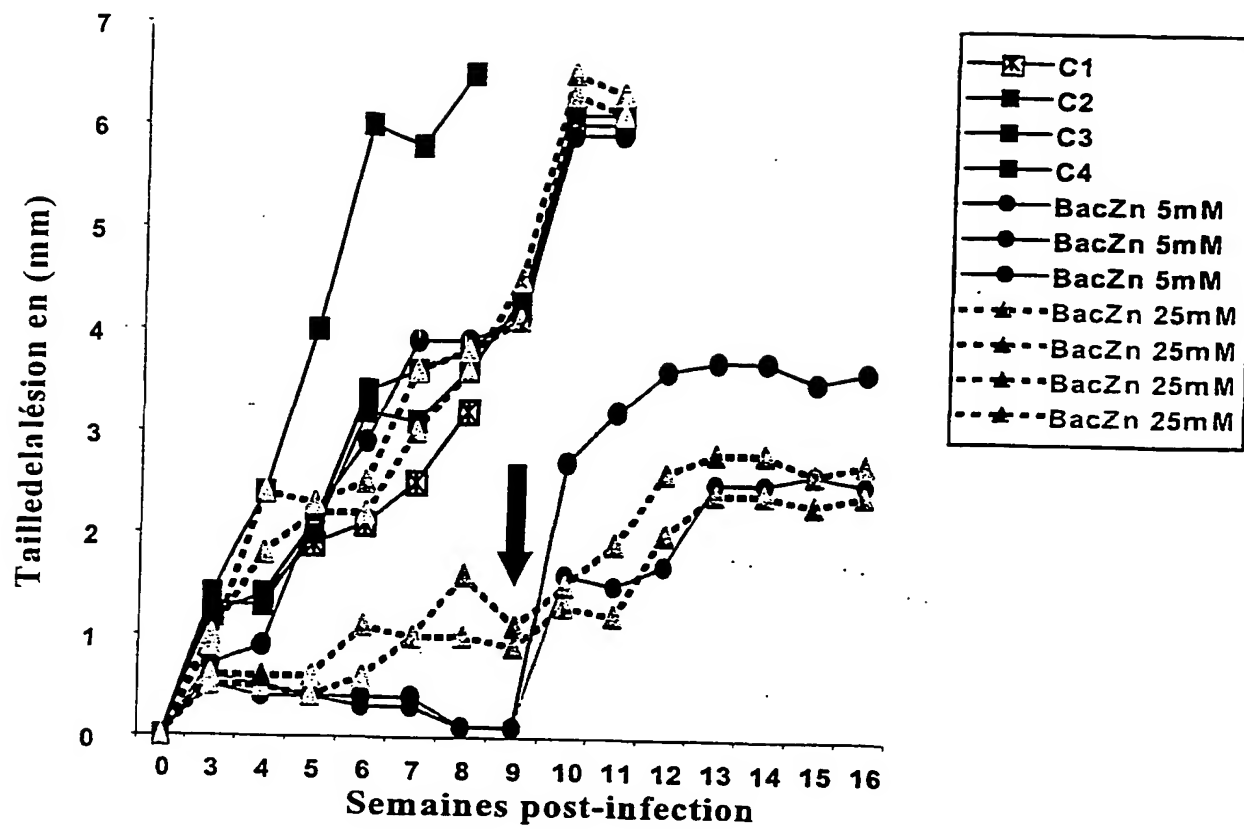


Figure 14